

State of California
California Environmental Protection Agency

AIR RESOURCES BOARD

STAFF REPORT

**PROGRESS TOWARDS APRIL 2009 DEADLINE FOR
ENHANCED VAPOR RECOVERY PHASE II SYSTEMS**

November 2008

Prepared by Monitoring and Laboratory Division

This report has been reviewed by the staff of the California Air Resources Board. Publication does not signify that the contents necessarily reflect the views and policies of the Air Resources Board.

TABLE OF CONTENTS

| | |
|---|-----------|
| EXECUTIVE SUMMARY | 1 |
| I. OVERVIEW | 3 |
| II. ACTIONS TAKEN TO EXPEDITE EVR IMPLEMENTATION..... | 3 |
| A. ARB and District Outreach | 3 |
| B. New Vapor Recovery Equipment Certified..... | 6 |
| III. PROGRESS IN INSTALLING EVR PHASE II SYSTEMS | 7 |
| A. Number of EVR Phase II Systems Installed by October 2008 | 7 |
| B. Availability of EVR Equipment and Contractors | 9 |
| IV. FINANCING EVR AND SMALL BUSINESSES | 10 |
| A. Availability of Financing for EVR Equipment Upgrades..... | 10 |
| B. SB 155 “Cox Bill” Extension | 10 |
| V. FURTHER ACTIONS RECOMMENDED | 11 |
| A. Continue Monitoring EVR Implementation | 11 |
| B. ARB/District Discussion of Enforcement Options | 11 |

EXECUTIVE SUMMARY

By April 1, 2009, most owners of gasoline dispensing facilities (GDFs) in California must install enhanced vapor recovery (EVR) Phase II systems. Phase II vapor recovery collects gasoline vapors during vehicle refueling at gasoline service stations. The Enhanced Vapor Recovery Program, approved in March 2000, provides a ten-year phase-in of multiple standards to reduce gasoline vapor emissions from the storage and dispensing of gasoline. Since the first EVR Phase II system became available in April 2005, service station owners will have four years to meet the deadline. Based on the availability of equipment and information from California's Air Pollution Control Districts on the EVR construction permits and installations, it is staff's assessment that a majority of stations will install EVR Phase II by the deadline. Staff recommends that the current EVR compliance dates be maintained.

At the June 2008 meeting of the Air Resources Board (ARB or Board), staff presented the April 2008 report, ***Progress Towards April 2009 Deadline for Enhanced Vapor Recovery Phase II Systems***. After hearing testimony from representatives of the petroleum marketing industry and other stakeholders, the Board directed staff to provide a progress report in October 2008. This report is an update on the efforts of ARB, the air pollution control districts and GDF owners to install EVR Phase II at the approximately 11,000 GDFs required to meet the April 2009 deadline. The report was delayed until mid-November in order to include information regarding the compliance plans and permit applications required in October in the South Coast and San Diego districts.

Over the past six months, ARB and District staffs have vigorously promoted the installation of EVR Phase II by the April 2009 deadline. ARB and district staffs have spoken at workshops and meetings throughout California to inform the industry of the deadlines and to provide assistance to local agencies which provide permits for GDF equipment upgrades.

Staff analysis indicates that equipment and qualified contractors are available now for EVR Phase II installations. In addition, ARB staff recently certified a new carbon canister pressure management device and approved changes to currently certified equipment that will reduce the cost of installing an in-station diagnostic system.

As of the end of October, about 58 percent of the GDFs statewide have obtained district permits to construct the upgrades and about 22 percent of GDFs have installed EVR Phase II equipment. About 4400 GDFs, or about 40 percent of California's GDFs are under the jurisdiction of South Coast Air Quality Management District (SCAQMD). GDF owners were required to submit compliance plans to SCAQMD by October 1, 2008, to project installing EVR Phase II by the April 2009 deadline. SCAQMD staff anticipates that when all the

compliance plans are processed, that close to 90 percent of GDFs in the South Coast have either already installed or have committed to install the equipment by April 2009.

In the present financial climate, business owners, and particularly small business owners, are experiencing serious challenges in financing the EVR Phase II upgrade. ARB staff is tracking the availability of loans and leasing options for the equipment upgrades, and is continuing to explore future funding from state grants. Communities in remote areas depend on low-throughput GDFs that are operated as small businesses. Since continued operation of these GDFs can be vital to their communities, Senate Bill 155 was recently enacted to provide some GDFs in remote areas a two year extension to install EVR Phase II equipment.

Finally, although the California Air Pollution Control Officers Association (CAPCOA) continues to support the April 1, 2009 deadline, both ARB staff and district staff recognize that there will be situations where station owners are unable to comply by the April deadline due to circumstances beyond their control, such as planning department delays. ARB staff is working with CAPCOA to develop criteria for "due diligence" and to provide appropriate remedies for those stations that miss the deadline that will allow them to remain open. ARB staff met with executive level district personnel in September and October and will be meeting with them again in December to facilitate a reasonable, coordinated approach to EVR regulation implementation. Enforcement of vapor recovery requirements after April 1, 2009, should balance consideration of good faith efforts of operators who fail to comply with the need to maintain equity for the GDF operators who will have complied with the EVR Phase II deadline.

I. OVERVIEW

At the June 2008 meeting of the Board, staff presented the April 2008 report, ***Progress Towards April 2009 Deadline for Enhanced Vapor Recovery Phase II Systems***. After receiving testimony from representatives of the petroleum marketing industry and other stakeholders, the Board directed staff to provide a progress report in October 2008 on efforts to meet the April 2009 deadline. In addition, the Board directed staff to collaborate with the local air pollution control districts on what constitutes a reasonable effort to meet the compliance deadline. The staff was also requested to investigate possible additional funding for installation of vapor recovery equipment at small rural gasoline dispensing facilities. The report was delayed until mid-November in order to include information regarding the compliance plans and permit applications required in October in the South Coast and San Diego districts.

As discussed in staff's report to the Board in April 2008, the Enhanced Vapor Recovery (EVR) Program, approved in March 2000, requires GDFs to phase in equipment upgrades over a ten year period. The final major phase of EVR requires that most stations upgrade to EVR Phase II systems by April 2009 and in-station diagnostics (ISD) by September 2009. EVR Phase II upgrade includes modifications to dispenser equipment and installation of a pressure management device. ISD installation involves placement of sensors in the dispensers. Lower-throughput stations have until September 2010 to install ISD. Staff expects most stations subject to ISD requirements will install ISD at the same time as the EVR Phase II upgrade to avoid two cycles of permitting and to minimize costs. Since the first EVR Phase II system became available in April 2005, service station owners will have four years to meet the EVR Phase II deadline.

In the six months since the June Board meeting, staff has tracked the permitting and installation of EVR Phase II equipment and the availability of EVR equipment and contractors. ARB staff has certified additional vapor recovery equipment, and ARB and District staffs have continued outreach to the gasoline marketers and local permit agencies. Discussions with the districts are continuing regarding enforcement options for EVR Phase II regulations. Based on the availability of equipment and information from the districts on the EVR construction permits and installations, it is staff's assessment that a majority of stations will install EVR Phase II by the deadline. Staff recommends that the current EVR compliance dates be maintained.

II. ACTIONS TAKEN TO EXPEDITE EVR IMPLEMENTATION

A. ARB and District outreach

Over the last year, ARB and District staffs have provided extensive outreach to station owners, contractors, and equipment suppliers, as well as to local agency

staff who permit station upgrades. Since January 2008, ARB and District staffs presented information on EVR Phase II upgrades at almost forty meetings and workshops, as listed in Table 1.

**Table 1: ARB and District Outreach Meetings
For EVR Phase II Vapor Recovery (January – September, 2008)**

| Date | Location | Host | Audience |
|--------|-----------------|------------------------|--|
| Jan 23 | Santa Barbara | Santa Barbara APCD | Local Permitting Agencies |
| Jan 30 | San Diego | San Diego APCD | San Diego CUPA |
| Feb 7 | Burlingame | CUPA Conference | CA CUPA agencies |
| Feb 14 | Diamond Bar | South Coast AQMD | Station operators/contractors |
| Mar 18 | Sacramento | CUPA Forum | CUPA Forum Board |
| Apr 2 | Riverside | South Coast AQMD | Station operators/contractors |
| Apr 22 | Sacramento | BERC* | Sacramento Co. Permit Agencies |
| May 8 | Sacramento | BERC* | Citrus Heights Permitting |
| May 14 | Sacramento | CARB | All stakeholders |
| May 21 | Vacaville | City of Vacaville | Yolo Co. Permit Agencies |
| May 27 | Sacramento | BERC* | Sacramento. Co. Permit Agencies |
| May 28 | Lincoln | City of Lincoln | Placer Co. Permit Agencies |
| May 29 | Antioch | City of Antioch | Antioch Permit Agencies |
| Jun 3 | Oakland | Shields-Harper | All stakeholders |
| Jun 4 | Stockton | City of Stockton | Stockton permit agencies |
| Jun 10 | Anaheim | City of Anaheim | Anaheim permit agencies |
| Jun 11 | Upland | City of Upland | All stakeholders |
| Jun 12 | Lancaster | City of Lancaster | All stakeholders |
| Jun 23 | Santa Barbara | CIOMA | CIOMA conference |
| Jun 26 | Sacramento | ARB Board mtg | All stakeholders |
| Jul 8 | Modesto | City of Modesto | Modesto permit agencies |
| Jul 9 | Fresno | City of Fresno | Fresno permit agencies |
| Jul 10 | Bakersfield | Kern County | Kern permit agencies |
| Jul 22 | La Quinta | City of La Quinta | All stakeholders |
| Jul 23 | San Bernardino | City of San Bernardino | All stakeholders |
| Jul 28 | El Centro | City of El Centro | All stakeholders |
| Jul 29 | San Diego | San Diego Co. | San Diego permit agencies |
| Jul 31 | Citrus Heights | BERC* | Station operators |
| Aug 7 | Diamond Bar | South Coast AQMD | All stakeholders |
| Aug 14 | Elk Grove | BERC* | Elk Grove permit agencies |
| Aug 27 | Anaheim | Shields-Harper | All stakeholders |
| Aug 28 | Burbank | Shields-Harper | All stakeholders |
| Sep 11 | Folsom | BERC* | Folsom permit agencies |
| Sep 23 | Elk Grove | BERC* | Station operators |
| Sep 23 | Hollywood | CA Planners Conference | Planning agency staff from throughout CA |
| Oct 1 | Montebello (LA) | City of Montebello | Montebello permit agencies |
| Oct 2 | Folsom | BERC* | Station operators |

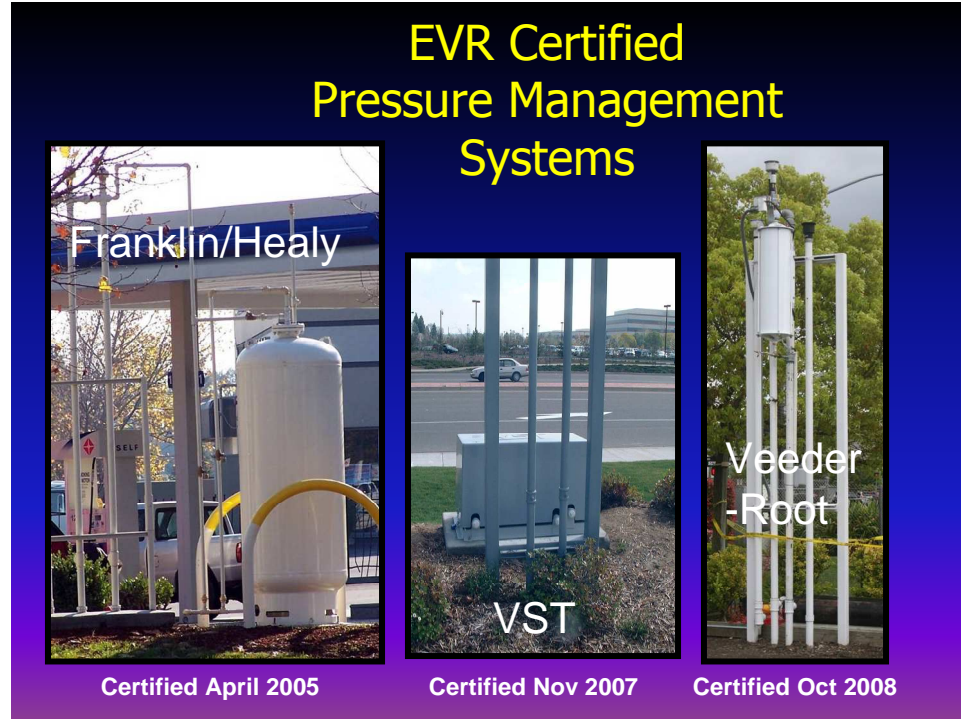
* Business Environmental Resource Center (County of Sacramento)

In addition to the air pollution district permit, a GDF upgrade requires other local permits or plan checks from the county public works or environmental health agencies, local fire agencies, and county and city planning departments. As Table 1 shows, ARB staff has worked extensively to educate local agency staff with the requirements for and the design of vapor recovery systems. After this outreach by ARB and District staff, GDF owners are reporting that permit applications are being processed quickly by a number of local agencies. Staff has also received reports that there are still significant delays in the processing of permits and plan checks at other local agencies.

B. New Vapor Recovery Equipment Certified

Figure 1 shows the three pressure management devices certified as part of EVR Phase II systems. The Franklin/Healy system accounts for the majority of installations so far. On October 17, 2008, ARB staff certified the Veeder-Root Carbon Canister (Vapor Polisher), which is expected to reduce installation costs. This carbon canister unit was added to VST's certified EVR Phase II system. Veeder-Root's carbon canister has been added to VR-203, the balance EVR vapor recovery system, and VR-204, the balance system with ISD. The Veeder-Root Vapor Polisher is a cylinder about four feet long and about a foot in diameter that is attached directly onto the vent pipe and filled with activated carbon. When the underground storage tank experiences positive pressure, vapor from the tank enters the canister, where hydrocarbons are adsorbed. The underground storage tank is typically at negative pressure during fuel dispensing to vehicles. During periods of negative pressure, fresh air is pulled into the canister and hydrocarbons are purged from the carbon and returned to the gasoline storage tank. It is anticipated that installation costs for the Vapor Polisher may be less than those of other pressure management devices previously certified. A concrete pad is not needed, and it is anticipated that local permit agencies would not require an enclosure to hide the carbon canister.

Figure 1: EVR Phase II Pressure Management Systems



Changes that will reduce the cost of installation were also recently approved for the Franklin Fueling INCON in-station diagnostic (ISD) system. Franklin Fueling now has a Wiredless™ option that allows the existing wiring in a dispenser to provide the communication with the ISD monitor located inside the station. With the Wiredless™ option, contractors will not need to break concrete to install additional wiring at the dispensers for the station's INCON ISD system.

III. PROGRESS IN INSTALLING EVR PHASE II SYSTEMS

A. Number of EVR Phase II Systems Installed by October 2008

Table 1 shows the number of gasoline dispensing facilities that must install EVR Phase II by the April 2009 deadline, the construction permits that were granted, and the number of installed systems as of the end of October 2008. By the end of October 2008, about 58 percent of California's GDF owners had obtained air district permits to construct EVR upgrades and about 22 percent had installed EVR Phase II equipment.

Table 2
Installation of EVR Phase II Systems: Status as of October 28, 2008

| California Air District | Total Subject GDFs | Number of GDFs with Applications Recv'd or Permit to Construct (P/C) Granted | percent Applications Recv'd or with P/C Granted | Number of GDFs w/EVR Phase II Installed | percent of GDFs w/EVR Phase II Installed |
|-------------------------------------|---------------------------|---|--|--|---|
| South Coast | 4376 | 2,800 | 64 | 992 | 23 |
| Bay Area | 2056 | 1,134 | 55 | 331 | 16 |
| San Joaquin | 1563 | 828 | 53 | 499 | 32 |
| San Diego | 809 | 748 | 92 | 131 | 16 |
| Subtotal Major Districts | 8804 | 5,510 | 63 | 1953 | 22 |
| Subtotal All Other Districts | 2389 | 1,026 | 43 | 462 | 19 |
| TOTALS | 11193 | 6,536 | 58 | 2415 | 22 |

(1) The count of total subject GDFs does not include GDFs which will shut down by April 1, 2009, and those with a fleet facility exemption or extension beyond April 1, 2009, for EVR Phase II requirements.

Two districts promoted the early installation of EVR Phase II equipment by requiring early submittal of air district permit applications, or by requiring the submittal of compliance plans. San Diego Air Pollution Control District required GDF owners to apply for permits to construct EVR Phase II upgrades by October 1, 2008. As a result, about 92 percent of the GDFs in San Diego County applied for permits to construct, and about 16 percent completed the installation.

South Coast Air Quality Management District, with jurisdiction for about forty percent of the GDFs in the state, required GDF owners to submit compliance plans by October 1, 2008. Each facility plan was required to include projected dates for submittal of permit applications to local agencies, equipment ordering, contracting for an equipment installer and contracting for an equipment tester. SCAQMD staff anticipates that when all the compliance plans received in October 2008, are processed, that almost 90 percent of GDFs in the South Coast have either already installed or have committed to install the equipment by April 2009.

Table 2 does not include GDFs that have been exempted from EVR Phase II and GDFs which have additional time to install the upgrade. EVR Phase II is not required in the areas that are attainment for ozone, including Lake County, Mendocino County, and the counties of the North Coast Unified Air Pollution Control District. Since Siskiyou County, Northern Sonoma, and San Luis Obispo were recently designated as non-attainment, GDFs in these counties have until November 2010 to install EVR Phase II. With the recent enactment of Senate

Bill 155, GDFs with throughputs less than 240,000 gallons per year in Alpine, Modoc, Lassen, Plumas, and Sierra Counties have until April 2011 to install the equipment.

B. Availability of EVR Equipment and Contractors

Manufacturers of EVR Phase II and ISD systems are meeting and exceeding the current demand for equipment. Two manufacturers, Franklin Fueling/Healy and Vapor Systems Technologies (VST), have had EVR Phase II systems on the market for some time. With the recent certification of the Vapor Polisher, Veeder-Root has moved quickly to manufacture and market the Vapor Polisher as a component of the balance EVR system. Staff projects that the three EVR equipment manufacturers can provide sufficient equipment in the next five months to retrofit all GDFs by April 2009.

Staff analysis indicates that equipment and qualified contractors are currently available for EVR Phase II installations with and without ISD. Contractors who install EVR equipment must be certified by the EVR equipment manufacturer. The list of certified installing contractors is provided on each manufacturer's website and is also linked to ARB web pages. The total number of certified contractors for each manufacturer in California as of October 2008 is provided in Table 3.

Table 3
Contractors Certified to Install EVR Phase II and ISD Systems

| System Manufacturers | Number of Certified Installing Technicians |
|--|---|
| Phase II System Manufacturers | |
| Franklin/Healy Assist System | 1683 |
| VST Balance System with Membrane Processor | 151 |
| VST with Veeder-Root Vapor Polisher | To be determined* |
| ISD System Manufacturers | |
| Veeder-Root (Level 1 installers) | 1200 |
| Veeder-Root (ISD installers) | 561 |
| Franklin INCON | 242 |

* Veeder-Root training for installation of the carbon canister began the first week of November 2008.

According to a phone survey of vapor recovery installing contractors conducted in September 2008, new EVR Phase II installation jobs are not being turned down or delayed. Contractors are currently available to install the vapor recovery upgrades.

In view of the availability of EVR equipment and contractors, it is staff's assessment that a majority of the GDFs in California will be able to install EVR Phase II by April 2009.

IV. FINANCING EVR AND SMALL BUSINESSES

A. Availability of Financing for EVR Equipment Upgrades

In the present financial climate, business owners, and in particular, small business owners, are experiencing serious challenges in financing the EVR Phase II upgrade. The estimated equipment and installation cost for installation of EVR Phase II varies from \$17,000 for a small station with two dispensers to \$85,000 for a high throughput station with twelve dispensers.

To track the availability of loans and leasing options for the EVR Phase II installation, ARB staff surveyed several financial institutions which offer EVR upgrade packages. These lending companies all indicated that funds are available to GDF owners to cover equipment and installation costs. The institutions surveyed offered loans with a lower end interest rate ranging from about five to seven and three quarters percent (5 to 7 ¾ percent). They also reported that GDF applications have been steady, but not strong over the last few months. Approval rates vary among the financial institutions contacted, and as the economic situation changes, some GDFs that may have previously qualified for lower interest loans, may now be considered as higher risk customers. A GDF owner with a low credit rating, existing debt, recent purchase of the business, or other factors contributing to higher risk, may be subject to a higher interest rate.

The State Water Resources Control Board funds a Repairing Underground Storage Tanks (RUST) program of loans and grants for replacing, removing or repairing underground storage tanks. In 2004, the program was expanded to cover vapor recovery systems. In past years the program has had about 2.6 million dollars for grants and about 5 million dollars for loans annually. Applications for RUST funds are currently being approved for fiscal year 2008-09. To date, nineteen gasoline dispensing facilities have already been approved to receive RUST grants, averaging about \$50,000 per site. Applications for RUST loans average about \$65,000, and one loan has been approved. The amount of funds requested in RUST grant and loan applications submitted for the 2008-2009 fiscal year already exceeds the total amount of funds allocated for 2008-2009.

B. SB 155 "Cox Bill" Extension

Communities in remote areas depend on low-throughput stations that are often operated as small businesses. Since continued operation of these GDFs can be

vital to their communities, Senate Bill (SB)155 was enacted during the 2007-2008 session of the State Legislature to provide low throughput stations in several counties two more years to install EVR Phase II. Stations with annual throughputs of 240,000 gallons of gasoline or less, located in Modoc, Lassen, Sierra, Plumas or Alpine Counties, have an EVR Phase II deadline of April 1, 2011. These five counties met the two requirements of SB 155: (1) the counties are not located in an air basin that is classified as nonattainment for ozone, and (2) the counties each have a population less than 100,000.

V. FURTHER ACTIONS RECOMMENDED

A. Continue Monitoring EVR Implementation

ARB staff will continue to monitor the installation of EVR Phase II at the state's GDFs. It is staff's assessment that a majority of the stations in California will have EVR Phase II by April 2009.

B. ARB/District Discussion of Enforcement Options

ARB staff and executive level representatives of the California Air Pollution Control Officers Association (CAPCOA) met in September and October and are planning to meet again in December to discuss options for enforcing the EVR regulations after the April 1, 2009, deadline. The air pollution control districts are not recommending any extension of the deadline for EVR, particularly because a number of GDF operators have completed EVR upgrades or have already taken actions that will allow them to meet the deadline. Although CAPCOA continues to support the April 1, 2009, deadline, both ARB staff and district staff recognize that there will be situations where station owners are unable to comply by the April deadline due to circumstances beyond their control, such as planning department delays. ARB staff and the districts are working to develop a "toolkit" of enforcement responses for the variety of situations that may prevent GDF owners from meeting the deadline. Enforcement of vapor recovery requirements after April 1, 2009, should balance consideration of the good faith efforts of operators who fail to comply with the need to maintain equity for the GDF operators who will have complied with the EVR Phase II deadline.